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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/816,092

04/01/2004

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67010-090;H2616-ED

9480

26096 7590 11/10/2009  
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EXAMINER

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ART UNIT

PAPER NUMBER

2837

MAIL DATE

DELIVERY MODE

11/10/2009

PAPER

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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* KENNETH MARKS and DOUGLAS A. PARSONS

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Appeal 2009-004457  
Application 10/816,092  
Technology Center 2800

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Decided: November 10, 2009

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Before MAHSHID D. SAADAT, ROBERT E. NAPPI and  
CARL W. WHITEHEAD, JR., *Administrative Patent Judges*.

WHITEHEAD, JR., *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134 from the Examiner's rejection of claims 1-6 and 9-19, however, the Examiner rejected claims 1-19. App. Br. 2.<sup>1</sup> Also see Ans. 3-12. Appellants state that an attempt to cancel claims 7 and 8 by amendment was denied entry by the Examiner (App. Br. 2).<sup>2</sup> Further, Appellants indicate that claims 7 and 8 were rejected under 35 U.S.C. § 112 (App. Br. 5). The claims were objected by the Examiner under 37 C.F.R. § 1.75 (c) in the Final rejection. We will not comment on the validity of the claim objection since that is petitionable subject matter.<sup>3</sup> We have jurisdiction under 35 U.S.C. § 6(b) (2002).

We affirm-in-part.

#### STATEMENT OF THE CASE

Appellants invented a fluid handling system with a particular skid layout and control system for controlling a plurality of motor.<sup>4</sup>

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<sup>1</sup> We will refer to the Appellants' revised Appeal Brief filed on September 22, 2006.

<sup>2</sup> Appellants appealed all the finally rejected claims according to their Notice of Appeal (filed Jun. 7, 2006). Hence, notwithstanding Appellants' statement in their Appeal Brief (App. Br. 2) withdrawing claims 7 and 8 from appeal, these claims are before us. Appellants' failure to argue these claims constitutes a waiver with respect to these claims. *Ex parte Ghuman*, No. 2008-1175, 2008 WL 2109842 (BPAI May 1, 2008)(precedential). However, we invite Appellants and the Examiner to clarify the status of claims 7 and 8 in view of the objection made by the Examiner and Appellants' attempt to cancel these claims.

<sup>3</sup> See MPEP § 706.01 ("[T]he Board will not hear or decide issues pertaining to objections and formal matters which are not properly before the Board."); see also MPEP § 1201 ("The Board will not ordinarily hear a question that should be decided by the Director on petition . . .").

<sup>4</sup> See generally Spec. 1-2.

Claim 1, which further illustrates the invention, follows:

1. A controller for controlling a plurality of motors in a fluid handling system, comprising:
  - a connector input/output port that communicates with at least one sensor in the fluid handling system to obtain sensor data;
  - at least one digital signal processor (DSP) and gate driver interface that evaluates the sensor data and generates a control signal based on the sensor data;
  - at least one communication module in communication with said at least one DSP and gate driver interface, wherein said at least one commutation module controls at least one motor based on the control signal;
  - said at least one motor receiving AC power under normal conditions;
  - a local power supply that selectively powers the motors; and
  - the local power supply is a DC backup power supply, and wherein said at least one DSP and gate driver switches to the DC backup power supply to supply power to said at least one motor in the event of a main power failure.

### *The Rejection*

The Examiner relies upon the following prior art references as evidence of unpatentability:

Katagiri	US 5,619,111	Apr. 8, 1997
Palleggi	US 5,638,387	Jun. 10, 1997
Blomquist	US 5,876,370	Mar. 2, 1999
Tisdale	US 6,553,770 B2	Apr. 29, 2003
Cho	US 6,731,089 B2	May 4, 2004
Cox-Smith	US 6,771,032 B2	Aug. 3, 2004
Miura	US 6,933,698 B2	Aug. 23, 2005

Claims 1, 4, 7 and 8 stand rejected under 35 U.S.C. § 103(a), as being unpatentable over Cho and Miura (Ans. 3-4).

Claims 1-3 stand rejected under 35 U.S.C. § 103(a), as being unpatentable over Palleggi and Blomquist (Ans. 4-5).

Claims 1-3, 5 and 6 stand rejected under 35 U.S.C. § 103(a), as being unpatentable over Katagiri and Blomquist (Ans. 6-7).

Claims 9, 10, 13, 18 and 19 stand rejected under 35 U.S.C. § 103(a), as being unpatentable over Tisdale and Cox-Smith (Ans. 7-9).

Claims 9, 11-13 and 15-19 stand rejected under 35 U.S.C. § 103(a), as being unpatentable over Tisdale and Katagiri (Ans. 9-11).

Claim 14 stands rejected under 35 U.S.C. § 103(a), as being unpatentable over Tisdale, Katagiri and Blomquist (Ans. 11-12).

Rather than repeat the arguments of Appellants or the Examiner, we refer to the Briefs and the Answer for their respective details. In this decision, we have considered only those arguments actually made by Appellants. Arguments which Appellants could have made but did not make in the Briefs have not been considered and are deemed to be waived. *See* 37 C.F.R. § 41.37(c)(1)(vii) (2008).

#### Claim 1

##### *Cho and Miura*

Appellants argue that the Examiner's reliance upon Miura to disclose a DC power back-up supply fails to address Cho's deficiency because Miura is not a motor power supply (App. Br. 5).

#### ISSUE

Have Appellants shown that the Examiner erred in finding that the combination of Cho and Miura discloses a controller within a fluid handling system having an AC powered motor with a DC backup power supply?

## FINDINGS OF FACT

1. Figure 1 of Miura is reproduced below:

FIG. 1

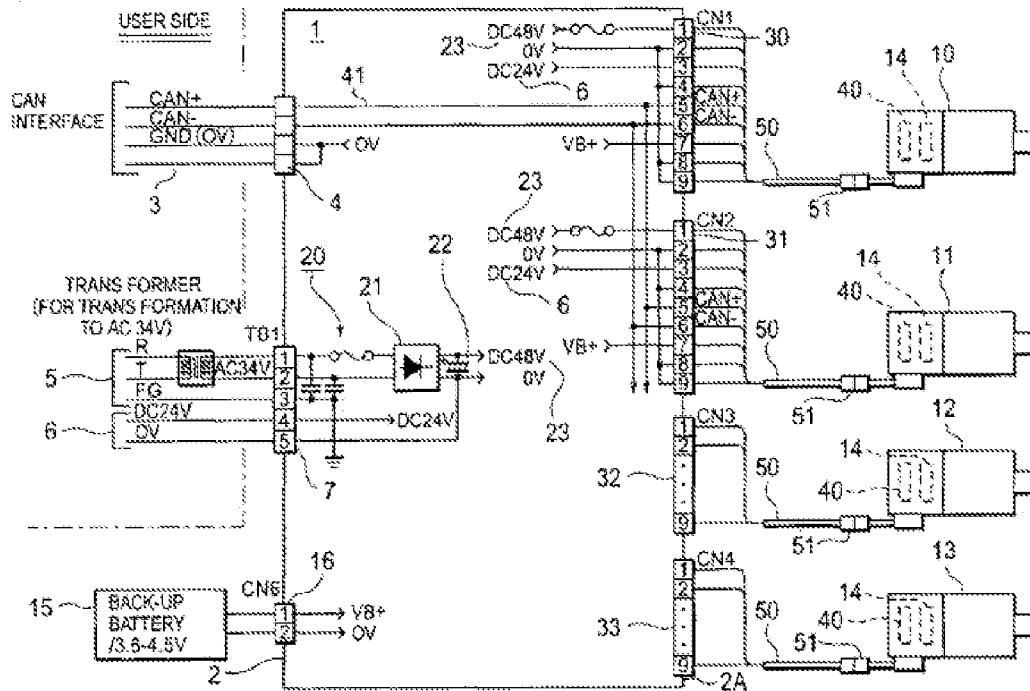


Figure 1 is a schematic diagram illustrating a method of driving servo motors with built-in drive circuits.

2. Miura discloses a power source connector 7 for supplying power to the distribution board 1. The AC power source 5 serves as the main power source (Col. 2, ll. 40-43).
3. Miura discloses the rectifying circuit 20 is shared by the servo motors 10-13 and the power from the DC power source 23 is supplied to the servo motors 10-13 (Col. 3, ll. 9-12).

## PRINCIPLES OF LAW

In rejecting claims under 35 U.S.C. § 103, it is incumbent upon the Examiner to establish a factual basis to support the legal conclusion of obviousness. *See In re Fine*, 837 F.2d 1071, 1073 (Fed. Cir. 1988). In so doing, the Examiner must make the factual determinations set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966). If the Examiner's burden is met, the burden then shifts to the Appellants to overcome the prima facie case with argument and/or evidence. Obviousness is then determined on the basis of the evidence as a whole and the relative persuasiveness of the arguments. *See In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992).

Mere lawyer's arguments and conclusory statements that are unsupported by factual evidence are entitled to little probative value. *In re Geisler*, 116 F.3d 1465, 1470 (Fed. Cir. 1997); *see also In re De Blauwe*, 736 F.2d 699, 705 (Fed. Cir. 1984).

## ANALYSIS

The Examiner relies upon Miura to disclose a DC backup power supply that Cho fails to disclose (Ans. 3-4). Appellants argue that because Miura is not a motor power supply, Miura fails to disclose a DSP and gate driver interface which switches between AC and DC power supplied to the same motor as required in claim 1 (App. Br. 5). We agree with the Appellants' argument that the combination of Cho and Miura fails to disclose the claim invention. Claim 1 requires that under normal conditions the motor is AC powered. Further, claim 1 requires that the DC backup power supply supplies power to the AC motor in the event of a power

failure. Miura provides backup power to a DC motor and not an AC motor (FF 1-3).

The motor used in Miura is DC powered (FF 1-2). The main power from the AC power source is rectified and converted into DC power (rectification) before being supplied to the motor (FF 2-3). Miura fails to provide the requisite technology of providing an AC motor with backup DC power as stated in claim 1. Thus Miura fails to address Cho's deficiency. Therefore, we will not sustain the Examiner's obviousness rejection of claim 1 and claims 4, 7 and 8 which depend upon claim 1.

*Palleggi and Blomquist*

Appellants argue that the Examiner's reliance upon Blomquist to disclose a DC power back-up supply fails to address Palleggi's deficiency because Blomquist does not disclose a control structure that switches between AC and DC power to supply the same motor. (App. Br. 6).

ISSUE

Have Appellants shown that the Examiner erred in finding that the combination of Palleggi and Blomquist discloses a controller within a fluid handling system having an AC powered motor with a DC backup power supply?



## FINDINGS OF FACT

4. Figure 1 of Blomquist is reproduced below:

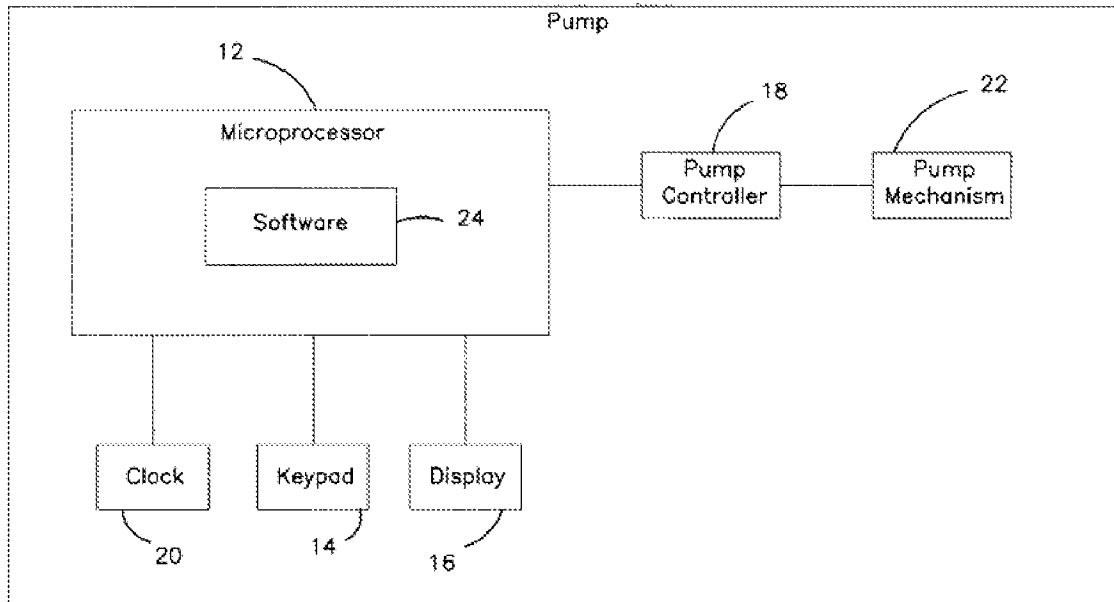


Figure 1 discloses a functional block diagram of an infusion pump capable of intermittent fluid delivery.

5. Blomquist employs a backup battery (not shown in figure 1) in the case of primary power supply failure. The backup battery supplies power to the components of the pump (Col. 3, ll. 9-15).

## ANALYSIS

Appellants argue that Blomquist fails to disclose a control structure wherein a DC backup power supply is used in conjunction with an AC power motor (App. Br. 6). Appellants further argue that there is no suggestion of a DSP and gate driver interface which selects between the AC and DC power supplies to provide power to the same motor. *Id.* We again find the Appellants' arguments persuasive.

Blomquist discloses the use of a backup power supply to provide power to the infusion pump in the event of power failure (FF 4-5). However, Blomquist does not disclose utilizing a DC backup power supply in conjunction with an AC powered motor (FF 4-5). Blomquist discloses using a battery for power backup and is silent in regard to the type of motor employed within the pump (FF 5). Thus Blomquist fails to address the deficiencies of Palleggi. Therefore, we will not sustain the Examiner's obviousness rejection of claim 1 and claims 2 and 3, which depend upon claim 1.

*Katagiri and Blomquist*

Appellants argue that the Examiner's reliance upon Blomquist to disclose a DC power back-up supply fails to address Katagiri's deficiency because Blomquist does not disclose a control structure that switches between AC and DC power to supply the same motor. (App. Br. 6).

ISSUE

Have Appellants shown that the Examiner erred in finding that the combination of Katagiri and Blomquist discloses a controller within a fluid handling system having an AC powered motor with a DC backup power supply?

ANALYSIS

Appellants argue that Blomquist fails to disclose a control structure wherein a DC backup power supply is used in conjunction with an AC power motor (App. Br. 6). Appellants further argue that there is no

suggestion of a DSP and gate driver interface which selects between the AC and DC power supplies to provide power to the same motor. *Id.* We again find the Appellants' arguments persuasive for the same reasons stated previously. Blomquist discloses the use of a backup power supply to provide power to the infusion pump in the event of power failure (FF 4-5). However, Blomquist does not disclose utilizing a DC backup power supply in conjunction with an AC powered motor (FF 4-5). Blomquist discloses using a battery for power backup and is silent in regard to the type of motor employed within the pump (FF 5). Thus Blomquist fails to address the deficiencies of Katagiri. Therefore, we will not sustain the Examiner's obviousness rejection of claim 1 and claims 2, 3, 5 and 6 which depend upon claim 1.

#### Claim 9

##### *Tisdale and Cox-Smith*

Appellants argue that claim 9 requires specific control features for a particular type system (App. Br. 6). The Examiner recognizes that Tisdale does not disclose the motor control features claimed in claim 9 and therefore relies upon the Cox-Smith reference to disclose the features (Ans. 7).

Appellants argue that there is no benefit to combine Tisdale with the Cox-Smith reference and therefore a proper motivation to combine the two references has not been established by the Examiner. *See App. Br. 7. Also see Reply Br. 2.*

## ISSUE

Have Appellants shown that the Examiner erred in finding that the combination of Tisdale and Cox-Smith discloses an integrated fluid handling system with specific motor control features?

## ANALYSIS

Appellants have not disputed the Examiner's factual findings in regards to the Tisdale and Cox-Smith references. *See* App. Br. 6-7. *Also see* Reply Br. 2. Both Appellants and the Examiner recognize that Tisdale is deficient in regards to disclosing the specific claimed control features such as a DSP, gate driver interfaces, etc. *See* Ans. 7. *Also see* App. Br. 6-7. The Examiner relies upon Cox-Smith to address Tisdale's deficiencies (Ans. 7-8). Appellants argue that no benefit is derived from combining the two references because although Cox-Smith provides some control features to synchronize motor operation, there is no benefit derived by modifying Tisdale's motor through synchronization. *See* App. Br. 7. Appellants conclude by arguing that Tisdale's motors operate independently of one another and there would be no proper reason to combine the references. *See Id.*

However such speculative assertions unsupported by factual evidence fail to persuasively rebut the Examiner's prima facie case of obviousness. *See Geisler*, 116 F.3d at 1470; *also see De Blauwe*, 736 F.2d at 705. Appellants merely assert that synchronizing Tisdale motors would not be beneficial yet provides no evidence and presents no specific arguments outside of indicating that Tisdale motors operate independently. *See* App. Br. 6-7. The Examiner recognized that Tisdale's motors operate

independently thus, the Examiner's reliance upon Cox-Smith to disclose synchronizing the motors establishes a prima facie case of obviousness for claim 9 (Ans. 8). We find no reason why the modification of Tisdale by synchronizing multiple motors would not be beneficial and obvious in view of the Cox-Smith reference. Most importantly, Appellants have not persuaded us of error in the Examiner's rejection of claim 9 by pointing out the alleged deficiency or lack of benefit in the combination with sufficient specificity. Therefore, we will sustain the Examiner's rejection of claim 9. Since Appellants did not separately argue with particularity the limitations of claims 10, 13, 18 and 19, we therefore sustain the Examiner's rejection of claims 10, 13, 18 and 19 for the reasons indicated previously.

*Tisdale and Katagiri*

Appellants assert that there is no true suggestion to combine Tisdale and Katagiri because there is nothing within Katagiri that would suggest the proposed modification (App. Br. 7).

ISSUE

Have Appellants shown that the Examiner erred in finding that the combination of Tisdale and Katagiri discloses an integrated fluid handling system with specific motor control features?

ANALYSIS

Appellants have not disputed the Examiner's factual findings in regards to the Tisdale and Katagiri references. *See App. Br. 7. Also see Reply Br. 3.* Both the Appellants and the Examiner recognize that Tisdale is

deficient in regards to disclosing the specific claimed control features such as a DSP, gate driver interfaces, etc. *See* Ans. 9. *Also see* App. Br. 7.

Appellants argue that there is no true suggestion to combine Tisdale and Katagiri because nothing within Katagiri would suggest the Examiner's proposed modification. *See* App. Br. 7.

Appellants simply state that because Tisdale includes a complex system and has its own controls, nothing within Katagiri would suggest the proposed modification. *See* App. Br. 7. However such speculative assertions unsupported by factual evidence fail to persuasively rebut the Examiner's prima facie case of obviousness. *See Geisler*, 116 F.3d at 1470; *also see De Blauwe*, 736 F.2d at 705. The Examiner modifies Tisdale's pumps by incorporating Katagiri's servomotors to improve motor control reliability thus establishing a prima facie case of obviousness in regards to claim 9. *See* Ans. 10.

Appellants have not persuaded us of error in the Examiner's rejection of claim 9. Therefore, we will sustain the Examiner's rejection of claim 9. Since the Appellants did not separately argue with particularity the limitations of claims 11-13 and 15-19, we therefore sustain the Examiner's rejection of claims 11-13 and 15-19 for the reasons indicated previously.

#### Claim 14

##### *Tisdale, Katagiri and Blomquist*

Appellants do not separately argue with particularity the limitations of claim 14 apart from merely asserting that this claim recites further features that are not taught or suggested by cited prior art (App. Br. 7). Such conclusory assertions without supporting explanation or analysis particularly

pointing out errors in the Examiner's reasoning fall well short of persuasively rebutting the Examiner's prima facie case of obviousness. *See In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992). We therefore sustain the Examiner's rejection of claim 14 for the reasons indicated previously.

### CONCLUSIONS

1. Appellants have shown that the Examiner erred in finding that the combination of Cho and Miura discloses a controller within a fluid handling system having an AC powered motor with a DC backup power supply.
2. Appellants have shown that the Examiner erred in finding that the combination of Palleggi and Blomquist discloses a controller within a fluid handling system having an AC powered motor with a DC backup power supply.
3. Appellants have shown that the Examiner erred in finding that the combination of Katagiri and Blomquist discloses a controller within a fluid handling system having an AC powered motor with a DC backup power supply.
4. Appellants have not shown that the Examiner erred in finding that the combination of Tisdale and Cox-Smith discloses an integrated fluid handling system with specific motor control features.
5. Appellants have not shown that the Examiner erred in finding that the combination of Tisdale and Katagiri discloses an integrated fluid handling system with specific motor control features.

ORDER

We will sustain the Examiner's decision rejecting claims 9-19. We will not sustain the Examiner's decision rejecting claims 1-8.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED-IN-PART

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Appeal 2009-004457  
Application 10/816,092